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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,813	02/28/2002	Steven James Wojcik	KCX-450 (16960)	2378

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EXAMINER

HAUGLAND, SCOTT J

ART UNIT	PAPER NUMBER
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3654

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/085,813

Applicant(s)

WOJCIK ET AL.

Examiner

Scott Haugland

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58,61,63 and 65-70 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-58,61,63 and 65-70 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4, 5, 8, 13-17, 20, 22-31, 37, 38, 40, 46-48, 51, 52, 54-57, 61, 63, and 65-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann (U.S. Patent No. 5,437,417).

Morizzo discloses a winder for winding a web to produce a rolled product comprising a web transport apparatus 36, 44, a plurality of independent winding modules 20, 20' located in a substantially linear arrangement that wind web by surface winding onto mandrels 22 driven by rollers 58, 62, positioning apparatus for moving the winding modules into engagement with the web (including motor 82 which positions frame 70 and rollers 58, 60, winding roller 58 connected to a vacuum source for holding the web against roller 58, and feed piston 68 which moves conveyor belt 38 upward -- see col. 6, line 53-col. 7, line 5), core loading apparatus 52, 90, 92, 93, product stripping apparatus (cylinder 72, discharge plate 73, transport assembly 56), and waste removal means (col. 7, line 62- col. 8, line 13). The mandrel 22 is movably positioned so that the distance between the web transport and winding module varies. Web is attached to the

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core 22 by adhesion (col. 6, lines 13-19). The formed rolled product includes core 22, 122 (col. 6, lines 10-13). Morizzo discloses a method of producing rolled product in which only one independent winding module winds at any given time (col. 9, line 40 - col. 10, line 4).

One winding module of Morizzo is capable of operating when another is shut down or disabled since the disclosed process of using the device involves winding with one module while another is not winding (col. 9, line 40 - col. 10, line 4). Further, the additional modules (beyond one) are not required for operation, but are present to speed the winding process (col. 9, lines 25-28), so the winder is capable of winding with only one functioning module.

Morizzo does not disclose that the winder is configured to form a rolled product by only center winding, by only surface winding, and by only combinations of center and surface winding. Morizzo does not disclose that the winding apparatus is located at the end of a tissue machine or a paper making machine or the step of providing slit web to be wound.

Kammann teaches making a web winder capable of winding using different winding modes including center and combinations of surface and center winding.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the winding modules of Morizzo to operate in additional modes to form a rolled product by only center winding, only surface winding, and only combinations of center and surface winding as taught by Kammann to adapt the device for improved winding of a greater range of materials. In the modified

apparatus of Morizzo, the winding modules would be pressed towards the web transport and the pressing would be at a controllable magnitude since it would inherently be controlled by the structure of the mechanism for pressing the winding module toward the web transport during combination center and surface winding. In addition, it would have been obvious to control the magnitude of the pressing to maintain the pressure within an acceptable range or vary the pressure for different materials or during winding since it is old and well known to do so to form rolls having desired characteristics and to permit winding of different materials.

With regard to claims 5 and 13, the web transport apparatus is seen to be a vacuum conveyor since it uses vacuum plate 44 in the conveying process.

With regard to claims 16 and 17, winding is inherently affected by controlling tension on the web and controlling torque of the winding modules.

With regard to claim 24, when three or more modules are present in the apparatus of Morizzo (col. 9, lines 25-28), the winding modules are in different planes as one fills while at least one other is idle or is being emptied by a discharge mechanism (col. 8, lines 58-62). In addition, the two winding modules shown in the drawings are in different vertical planes.

With regard to claim 25, the winding modules of Morizzo are seen to be configured for winding slit web since they are capable of winding plural parallel slit webs on a single core or coaxial cores.

With regard to claims 26 and 27, it would have been obvious to one having ordinary skill in the art at the time the invention was made to locate the winding

apparatus of Morizzo at the end of a tissue machine or a paper making machine to wind the web produced thereby since the apparatus of Morizzo is clearly capable of winding tissue or other paper.

With regard to claim 28, the winding modules of Morizzo are inherently capable of producing rolled product having different sheet counts by stopping the winding process at different points.

With regard to claim 38, three or more modules are disclosed (col. 9, lines 25-28).

With regard to claim 40, the web transport apparatus is seen to be a vacuum conveyor since it uses vacuum plate 44 in the conveying process.

With regard to claims 23 and 47, the winding modules are in a radial arrangement since they lie along radii originating from the same point, although the radii may not all be of equal length.

With regard to claim 48, when three or more modules are present (col. 9, lines 25-28), the winding modules are in different planes as one fills while at least one other is idle or is being emptied by a discharge mechanism (col. 8, lines 58-62). In addition, the two winding modules shown in the drawings are in different vertical planes.

With regard to claims 54 and 55, Morizzo does not disclose that the winding apparatus is located at the end of a tissue machine or a paper making machine. It would have been obvious to one having ordinary skill in the art at the time the invention was made to locate winding apparatus of Morizzo at the end of a tissue machine or a

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paper making machine to wind the web produced thereby since the apparatus of Morizzo is clearly capable of winding tissue or other paper.

With regard to claim 56, the winding modules of Morizzo are inherently capable of producing rolled product having different sheet counts by stopping the winding process at different points.

With regard to claim 57, the winding modules of Morizzo are seen to be configured for winding slit web since they are capable of winding plural parallel slit webs on a single core or coaxial cores.

With regard to claim 63, it would have been an obvious use of the winder of Morizzo as modified to wind with at least two modules at a time to increase the winding rate.

With regard to claim 69, the winding modules of Morizzo are capable of producing rolled product having different roll attributes (e.g., material, diameter).

With regard to claim 70, the winding modules of Morizzo are capable of producing rolled product having different roll attributes (e.g., material, diameter).

Claims 3, 45, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claims 1 and 38, and further in view of Diltz (U.S. Patent No. 3,869,095).

Morizzo is described above.

Morizzo does not disclose a brake controlled mandrel, a perforated core, or a vacuum supplied mandrel.

Diltz teaches making a winding mandrel brake controlled to decelerate a completed roll wound on the mandrel (col. 7, lines 17-29). Diltz teaches providing perforated cores 88 and vacuum supplied mandrels 40, 41 for attaching a leading end of web to be wound to the cores. Diltz teaches providing an air blast (col. 8, lines 26-33) for redirecting a leading end of a web to be wound onto a winding module.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the winding modules of Morizzo with brake controlled mandrels as taught by Diltz to decelerate a completed product roll. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Morizzo with perforated cores and vacuum supplied mandrels and an air blast for redirecting web onto the cores as taught by Diltz to attach web to the cores without the need for adhesive.

Claims 5, 6, 13, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claims 1, 2, 4, and 38 above, and further in view of Nistri et al (U.S. Pat. No. 4,583,698).

Nistri et al teaches using a vacuum conveyor 9 and vacuum roll 8 to feed and facilitate threading of a web in a winder.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Morizzo with a vacuum conveyor or vacuum roll for feeding the web to the winding modules as taught by Nistri et al to maintain feeding engagement with the web and to facilitate threading through the winding apparatus.

Claims 7 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claims 1 and 38, and further in view of Menz et al (doc. no. WO 98/52857).

Morizzo does not disclose a web transport apparatus that is an electrostatic belt.

Menz et al teaches using an electrostatic belt (in lieu of rollers 3, 4) to feed web material (page 6, third full paragraph; col. 3, lines 24-29 of corresponding US Pat. No. 6,264,132).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Morizzo with a web transport apparatus in the form of an electrostatic belt as taught by Menz et al to provide more positive gripping and feeding of the web.

Claims 9, 21, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claims 1, 2, and 38 above, and further in view of Johnson et al (U.S. Patent No. 5,497,959).

Morizzo does not disclose a vacuum mandrel.

Johnson et al teaches providing vacuum mandrels for winding coreless rolled products and teaches forming rolled products that are coreless with a cylindrical cavity in the center.

With regard to claims 9 and 42, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the winding

apparatus of Morizzo with vacuum mandrels as taught by Johnson et al to allow it to form coreless rolled products.

With regard to claim 21, it would have been obvious to modify Morizzo to form a rolled product that is coreless and has a cylindrical cavity in the center as taught by Johnson to reduce the amount of packaging used.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claims 1 and 2 above, and further in view of Pretto et al (U.S. Patent No. 5,379,964).

Morizzo does not disclose that the mandrels are made of a carbon fiber composite.

Pretto et al teaches forming a web winding mandrel of a carbon fiber composite to provide a lightweight mandrel having high strength and stiffness.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the mandrels of Morizzo of a carbon fiber composite as taught by Pretto et al to make them light weight with high strength and stiffness.

Claims 11 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claims 1 and 38 above, and further in view of Dowd (U.S. Patent No. 4,133,495).

Morizzo does not disclose a tail sealing apparatus.

Dowd teaches providing a web winding apparatus with a tail sealing apparatus to prevent unwinding of an outer end of a web from a finished roll.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Morizzo with a tail sealing apparatus as taught by Dowd to prevent unwinding of an outer end of the web from a completed product roll.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claim 1 above, and further in view of Urban (U.S. Patent No. 4,988,052).

Morizzo does not disclose applying adhesive to the leading end and trailing end of web before it engages the winding modules.

Urban teaches applying adhesive to the leading end and trailing end of web 7 being wound before it engages winding modules 4, 5, 6.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply adhesive to the leading and trailing ends the web of Morizzo before it engages winding modules as taught by Urban to attach the leading and trailing ends of web to cores in plural winding modules while requiring only a single adhesive applying station.

Claims 18, 32, 33, 39, 44, 53, and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claims 1, 31, and 38 above, and further in view of Billingsley (U.S. Patent No. 3,157,371).

Morizzo does not disclose providing slit web to be wound by the winding modules. Morizzo does not disclose loading a core on a mandrel. Morizzo does not disclose center and surface drives.

Billingsley teaches providing slit web to a winder (col. 1, lines 9-12). Billingsley teaches providing mandrels 18, 20 for supporting and driving cores 15, 16 mounted on them. Billingsley teaches providing a web winder with driven mandrels 17, 18, 19, 20 and a surface contacting drive (drum) 14 driven at a speed differential to improve winding characteristics (col. 3, lines 23-35). Billingsley teaches providing a winder with means to load cores onto the mandrels (col. 4, lines 39-42).

With regard to claim 32, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide slit web to the winder of Morizzo as taught by Billingsley to process long rolls into shorter ones since it would have been clear that Morizzo is usable for winding slit or unslit webs.

With regard to claims 18, 33, and 44, it would have been obvious to provide Morizzo with mandrels and cores mounted on them as taught by Billingsley to provide the necessary structure to permit the cores to be driven as suggested by Kammann. Loading of cores and accelerating the mandrels are inherent in the use of the apparatus of Morizzo as modified.

With regard to claim 39, it would have been obvious to provide Morizzo with core loading means as taught by Billingsley to automatically supply the required cores to the winder.

With regard to claim 53, it would have been obvious to provide the winding apparatus of Morizzo with a driven mandrel for receiving core and drive means for controlling the speed differential between the mandrel drive (center drive) and the surface drive as taught by Billingsley to provide Morizzo with center and surface drives to obtain increased control over the winding process and product quality.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claim 1 above, and further in view of Oliver et al (U.S. Patent No. 5,402,960).

Morizzo does not disclose that the rolled product produced by the winding modules is solid and coreless without a cavity.

Oliver et al teaches forming a rolled web of paper as a solid roll without a core to reduce packaging materials.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the winding device of Morizzo to form a rolled product that is solid and coreless without a cavity as taught by Oliver et al reduce the quantity of packaging materials required for the product.

Claims 34-36 and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morizzo in view of Kammann as applied to claim 1 above, and further in view of Little (U.S. Patent No. 1,648,990).

Morizzo is described above.

Morizzo does not disclose that at least two of the plurality of winding modules wind the web at any given time or providing slit web to the winding modules.

Little teaches winding web by independent winding modules such that two of the modules wind web at any given time (page 1, lines 30-40). Little teaches providing slit web to the winding modules (page 1, lines 31-35).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to operate Morizzo so that at least two winding modules wind web at any given time as taught by Little to increase the rate of production.

With regard to claim 36, it would have been obvious to provide slit web to the winding modules of Morizzo as taught by Little since the winder Morizzo would clearly have been capable of winding slit or unslit web.

Claims 1, 2, 4-6, 9, 10, 13, 14, 21, 23, 67, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al (U.S. Patent No. 5,497,959) in view of Kammann.

Johnson et al discloses a winder for winding a web to produce a rolled product comprising a web transport apparatus 10, 12 (of which 12 is a vacuum conveyor - see col. 3, lines 55-59) and a plurality of independent winding modules 15, 16, 17, 18 and 15', 16', 17', 18' in a radial arrangement that wind by surface winding. The winding modules have vacuum mandrels 15, 15' for winding a coreless rolled product having a cylindrical cavity in the center (col. 1, lines 10-14, Figs. 2 and 3).

Kammann teaches making a web winder capable of winding using different winding modes including center and combinations of surface and center winding.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the winding modules of Morizzo to operate in additional modes to form a rolled product by only center winding, only surface winding, and only combinations of center and surface winding as taught by Kammann to adapt the device for improved winding of a greater range of materials. In the modified apparatus of Morizzo, the winding modules would be pressed towards the web transport and the pressing would be at a controllable magnitude since it would inherently be controlled by the structure of the mechanism for pressing the winding module toward the web transport during combination center and surface winding. In addition, it would have been obvious to control the magnitude of the pressing to maintain the pressure within an acceptable range or vary the pressure for different materials or during winding since it is old and well known to do so to form rolls having desired characteristics and to permit winding of different materials.

With regard to claim 2, the mandrels 15, 15' of Johnson are driven by winding drums 17, 18, 17', 18' (col. 4, lines 3-4).

With regard to claim 69, the winding modules of Johnson are capable of producing rolled product having different roll attributes (e.g., material, diameter).

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al in view of Kammann as applied to claim 1 above, and further in view of Urban (U.S. Patent No. 4,988,052).

Johnson et al does not disclose applying adhesive to the leading end and trailing end of web before it engages the winding modules.

Urban teaches applying adhesive to the leading end and trailing end of web 7 being wound before it engages winding modules 4,5,6.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply adhesive to the leading and trailing ends the web of Johnson et al before it engages the winding modules as taught by Urban to attach the leading and trailing ends of the web to cores in plural winding modules while requiring only a single adhesive applying station.

Response to Arguments

Applicants' arguments filed 8/26/05 have been fully considered but they are not persuasive.

Applicants argue that Kammann does not disclose or suggest pressing a winding module towards a web transport apparatus at a controllable magnitude to create a nip pressure to control winding of the web. However, the winding module of Kammann including roll 4 is pressed toward the web transport 2 in the mode in which winding occurs by a combination of center and surface winding (called central contact winding in Kammann). Note col. 1, lines 9-13; col. 1, lines 41-45; col. 2, lines 14-26 of Kammann.

The magnitude of pressing of the winding module toward the web transport is controllable at least since it can be changed between a finite value during central contact winding and zero during central gap winding (with the winding module and web transport 2 spaced apart).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Haugland whose telephone number is (571) 272-6945. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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11/3/05

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